

ABSTRACT OF THE DISCLOSURE

An intermediate film (15, 12, 53) is formed on a substrate (11, 52), a bottom electrode (13, 542) is formed on top of this intermediate film, a ferroelectric film (24) or piezoelectric film (543) is formed on top of this bottom electrode by an ion beam assist method, and a top electrode (25, 541) is formed on top of this ferroelectric film or piezoelectric film. The ferroelectric film or piezoelectric film is formed by PZT, BST or a relaxer material. As a result of the use of an ion beam assist method in the formation of any one of the intermediate film, bottom electrode, ferroelectric film or piezoelectric film, a piezoelectric device or ferroelectric device which has a piezoelectric film or ferroelectric film with an in-plane orientation can be manufactured with good efficiency.